



A VOICE FOR RESEARCH ON THE  
SEDIMENTARY CRUST, DEEP-TIME AND EARTH-  
LIFE SYSTEM

# WHAT IS STEPPE?

Sedimentary Geology

Time

Environment

Paleontology

Paleoclimatology

Energy

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# WHAT IS STEPPE?

An NSF-supported consortium whose purpose is to promote multidisciplinary research and education on Earth's deep-time sedimentary crust.

## Current Consortium Members:

American Association of Petroleum Geologists (AAPG)

American Geosciences Institute (AGI)

Geological Society of America (GSA)

Geological Society of London (GSL)

Paleontological Society (PS)

Society for Sedimentary Geology (SEPM)



# STEPPE FUNDING

## NSF - P2C2 (Cooperative Agreement)

*PIs Dena Smith (STEPPE - Geological Society of America); Marty Perlmutter (Chevron); Lisa Park Boush (University of Connecticut)*

Coordinating Office for Research on the Sedimentary Crust, Deep-Time and the Earth-Life System.

Dates: 03/15/13-02/29/16

## Consortium Member Funding – Interns

NSF support for other initiatives

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# STEPPE BOARD & COMMITTEE STRUCTURE

Board of Directors (16 members)

Executive Committee

Finance Committee

Nominating Committee

Education & Outreach Committee

Cyberinfrastructure Committee

Consortium Membership Committee

Workshop Committee

# THE CHALLENGES AND WHY STEPPE

Large and diverse community of researchers –  
difficult to build teams.

Limited funding resources

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# THE GOALS

Support Multidisciplinary Research/Education Teams

Solve the big problems

Develop new tools

Support workforce development

Communicate deep-time science

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# ACCOMPLISHMENTS

Development of Central Information Portal

Support New Research Synergies

Education and Outreach Collaboratives

Expand Partnerships

Provide Infrastructure

Sustainability



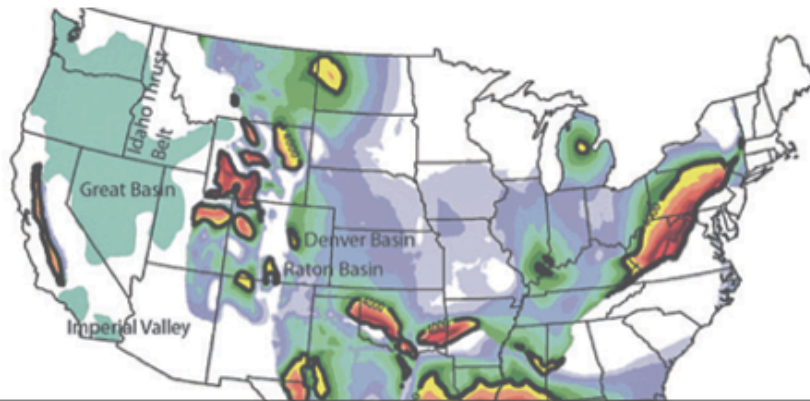




## A Voice for Research

STEPPE is an NSF-supported consortium whose purpose is to promote multidisciplinary research and education on Earth's deep-time sedimentary crust.

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### An opportunity of geothermal proportions

*The Sedimentary Record* explores U.S. geothermal energy in sedimentary basins



## STEPPE FEATURED RESEARCHER



Check out STEPPE Featured Researcher [Nicholas Heavens](#) of Hampton University.

## NEWS DIGEST

STEPPE issues workshop 'call for proposals' *December 2, 2014*

f-geothermal-proportions-04212014/

## SELECTED FUNDING DEADLINES



Janet Cullen Tanaka Scholarship —  
Association for Women  
Geoscientists

## DEEP-TIME BLOG



Patterns in the fossil record  
*December 1, 2014*

## Synthesis and Accessibility

- Database of white papers and reports
  - Funding Database
  - Events Calendar
  - New opportunities
-

## New Content to Inspire and Inform

- Featured Researcher
- Blog Posts
- News Digest
- Online Collaboration Platform: STEPPE Connect!



[#deeptimerocks](https://twitter.com/deeptimerocks)



# SUPPORTING NEW RESEARCH SYNERGIES

## Support of collaborative groups

- ELT – coordinating workshops & symposia
- C4P – long-term archive and support
- SedHeat – long-term archive and support
- EnDLESE – long-term archive and support

# SUPPORTING NEW RESEARCH SYNERGIES

- Working groups/workshops

“Biological and Environmental Transitions During the Neoproterozoic and Paleozoic.”

“Tracking Biotic Change Across the Cretaceous-Paleogene of India.”

“ONE-Delta – Synthesizing Observational, Numerical, and Experimental data to unravel the complex dynamics of deltas and margin sequences.”

“Increased precipitation extremes in greenhouse conditions; An integrated paleoclimate and anthropogenic perspective.”

“Lake Tanganyika: A Miocene-Recent Source-to-Sink Laboratory in the African Tropics.”

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# SUPPORTING NEW RESEARCH SYNERGIES

## Infrastructure for Sciences

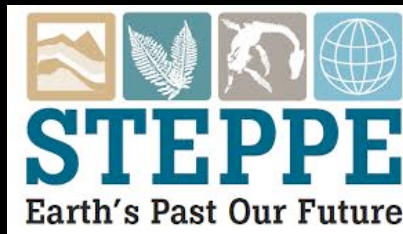
- Fossil Calibration Advisory Board
  - Continental Scientific Drilling Coordinating Office - Policy Committee
  - Paleobiological Data Consortium - Advisory Council,
  - EarthCube Cyberinfrastructure for Paleogeosciences - Steering Committee
  - Many others
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# BUILDING RESEARCH INFRASTRUCTURE

ePANDDA: Enhancing PAleontological and Neontological Data  
Discovery API

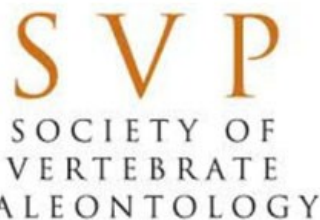
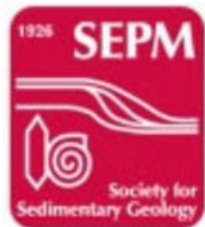
*Funded by NSF – EarthCube*

*API = Application Programming Interface*



# EDUCATION AND OUTREACH COLLABORATION

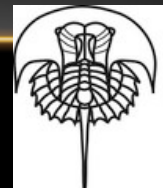
## Student Travel Awards to 4<sup>th</sup> International Paleontological Congress, Mendoza, Argentina





# EDUCATION AND OUTREACH COLLABORATION

Student Travel Awards to 2<sup>nd</sup> International Congress on Stratigraphy (STRATI 2015) and NSF workshop in Graz, Austria.



The University of Kansas  
Paleontological Institute



# EDUCATION AND OUTREACH COLLABORATION

## Teacher Training in the Field

- Hands-on experience with fossils and key geologic concepts
- Modules developed for middle school classrooms



# EDUCATION AND OUTREACH COLLABORATION

## INTERNSHIP PROGRAM

- Science Policy
- Social Media
- Science Communication
- Community Development

Lindsey Bowman,  
Department of Geology & Geography, West Virginia University



Wassim Benhallam  
Department of Geology and Geophysics, University  
of Utah



Zoe Gentes  
Oceanography, University of Rhode Island



Kathryn Nold  
Geological Sciences & Anthropology, Indiana University



Erin Leckey,  
Department of Geological Sciences, University of Colorado

# COMMUNICATING SCIENCE

## Informal Education Opportunities

Connecting Partners: Academia, Museums, Amateurs

## Science Advocacy

Congressional Visits Day

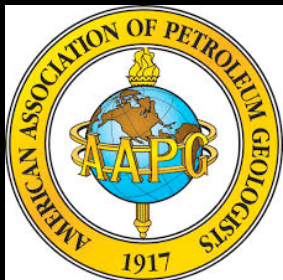
## Teachable Moments – In Real Time

Society Journals -> Press -> Classroom



# PARTNERSHIPS

- Professional Societies
- Academic Depts.
- Cyberinfrastructure
- Biosciences
- Private/Industry
- Government
- Citizen Science



# STEPPE FUTURE – GO BIG!

## Combine Initiatives

STC, Synthesis Centers, Observatory Networks/Analytic Hubs

- Support of graduate students, post-docs, sabbatical/visiting scholars
  - Hackathons and Tool Developments
  - Continued Workshops & Longer-term synthetic projects
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Promote multidisciplinary research and education on Earth's deep-time sedimentary crust.

Solve the big problems

Develop new tools

Support workforce development

Communicate deep-time science